

Date: Wednesday, 11/02/2009 7:20:34 AM  
User: Linda Lacelle

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : TOW RING-BLUE  
Job Number : 45743  
Estimate Number : 10793  
P.O. Number :  
This Issue : 11/02/2009 S.O. No. :  
Prsht Rev. : NC Part Number : D3407043  
First Issue : / / Type : LARGE FAB ASSY Drawing Number : D3407 REV E  
Previous Run : 43387 Project Number : N/A  
Material :  
Due Date : 13/02/2009 Qty: 8 Um: Each  
Written By :  
Checked & Approved By :  
Comment : Est Rev:A 05.10.14 New issue KJ/EC  
Est Rev:B 08-09-09 revE as per dwg DD verified by:EC

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 D34073 Stem



Comment: Qty.: 1.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick:

Qty Part Number Description Batch  
1 D3407-3 Stem B43422 = 8x

SP 09.02.11.

2.0 D34075 Ring



Comment: Qty.: 1.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick:

Qty Part Number Description Batch  
1 D3407-5 Ring B44447 = 8x

SP 09.02.11

3.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld D3407-3/-5 using welding rod TIG174 as per Dwg D3407 & QSI 004

A/R TIG174 ROD Batch: M 108774

SP 09.02.12. (8x)

4.0 QC9 VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

SP 09.02.12

5.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SP 09/02/12 (x8)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Wednesday, 11/02/2009 7:20:34 AM  
User: Linda Lacelle

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TOW RING-BLUE

Job Number: 45743

Part Number: D3407043

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

SPRAY PAINTING

SPRAY PAINTING



Comment: -PRIME B 110199

grey

-PAINT DELFLEET BLUE B 110077

-CLEAR DELFLEET B 110161

\*\*\*mask threaded section !! \*\*\*

ml 09 02 13 (8)

7.0

QC14

INSPECT SPRAY PAINT



Comment: INSPECT SPRAY PAINT

09 02 17 (8)

8.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 420

9/2/18

(8x)

510

9.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/02/18

Job Completion



mf  
09-02-18

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

QTY -041	QTY -043	QTY -045	PART NUMBER	DESCRIPTION
X			D3407-041	TOW RING
	X		D3407-043	TOW RING
		X	D3407-045	TOW RING
1			D3407-1	STEM
	1		D3407-3	STEM
1	1	1	D3407-5	RING
		1	D3407-7	STEM

D3407-5 RING

D3407-1 STEM

8 1/8

D3407-041 TOW RING

D3407-5 RING

D3407-3 STEM

8 1/8

D3407-043 TOW RING

D3407-5 RING

D3407-7 STEM

8 1/8

D3407-045 TOW RING

RELEASED

NOTES:

1) MATERIAL: N/A

2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3 (EXCEPT THREADS)

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: N/A

6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3407-XXX" USING BLACK FINE POINT PERMANENT INK MARKER

7) WEIGHT: D3407-041 - 0.60 lbs, D3407-043 - 0.53 lbs, D3407-045 - 0.61 lbs

8) WELD PER DART QSI 004 ON ALL EDGES BETWEEN STEM AND RING

REV. E

ADD D3407-045 (ZN B2-1, D8-1); ADD D3407-7 (ZN B6-5); REVISED NOTE 6 TO ADD IDENTIFICATION (ZN A5-1); REASON: PRODUCTION FACILITY

PH 08.07.23

REV. D

D3407-1/3 SLOT WAS ROUND NOW FLAT FOR ASSEMBLY WITH D3407-5 (ZN C2-2, C2-3); D3407-5 WAS ROUND NOW FLAT ON ONE END FOR ASSEMBLY WITH D3407-1/3 (ZN B6-4); REASON: PRODUCTION FACILITY

PH 08.04.07

REV. C

-1/3 LONGER FOR FIT W/WASHER

CP 05.09.09

REV. B

UPDATE DIAMETER, THREAD CLASS ADDED

CP 05.06.17

REV. A

NEW ISSUE

CP 05.03.16

DESIGN

DART AEROSPACE USA, INC.

PORT HADLOCK, WA

DRAWN

D3407

REV. E

CHECKED

D3407

SHEET 1 OF 5

MFG. APPR.

TOW RING

SCALE

APPROVED

TOW RING

NTS

DE APPR.

TOW RING

NTS

DATE

08.07.23

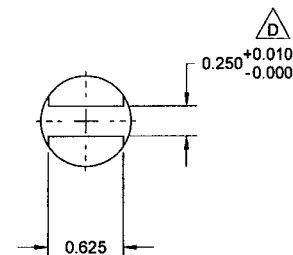
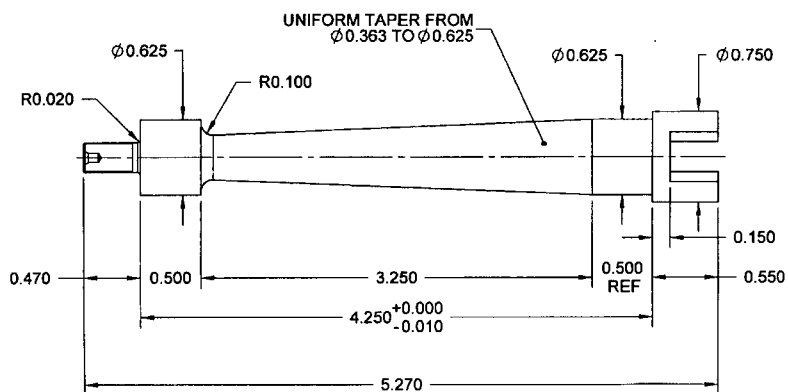
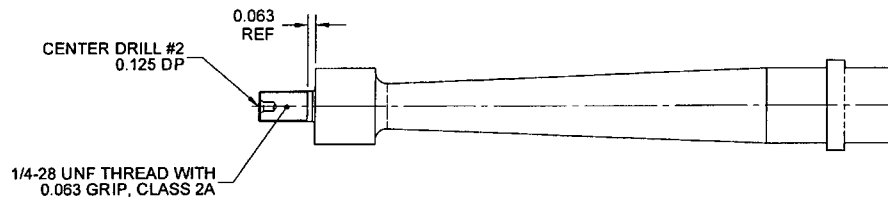
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345x

E	ADD D3407-045 (ZN B2-1, D8-1); ADD D3407-7 (ZN B6-5); REVISED NOTE 5 TO ADD IDENTIFICATION (ZN A5-1). REASON: PRODUCTION FACILITY	PH	08.07.23
D	D3407-1/3 SLOT WAS ROUND NOW FLAT FOR ASSEMBLY WITH D3407-5 (ZN C2-2, C2-3); D3407-5 WAS ROUND NOW FLAT ON ONE END FOR ASSEMBLY WITH D3407-1/3 (ZN B6-4); REASON: PRODUCTION FACILITY	PH	08.04.07
C	-1/3 LONGER FOR FIT W/WASHER	CP	05.09.09
B	UPDATE DIAMETER, THREAD CLASS ADDED	CP	05.06.17
A	NEW ISSUE	CP	05.03.16
REV.	DESCRIPTION	BY	DATE
DESIGN		<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA  DRAWING NO. <b>D3407</b> TITLE <b>TOW RING</b>  COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	
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CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.		REV.	SHEET 1 OF 1
DATE	08.07.23	SCALE	NAT



**D3407-1 STEM**

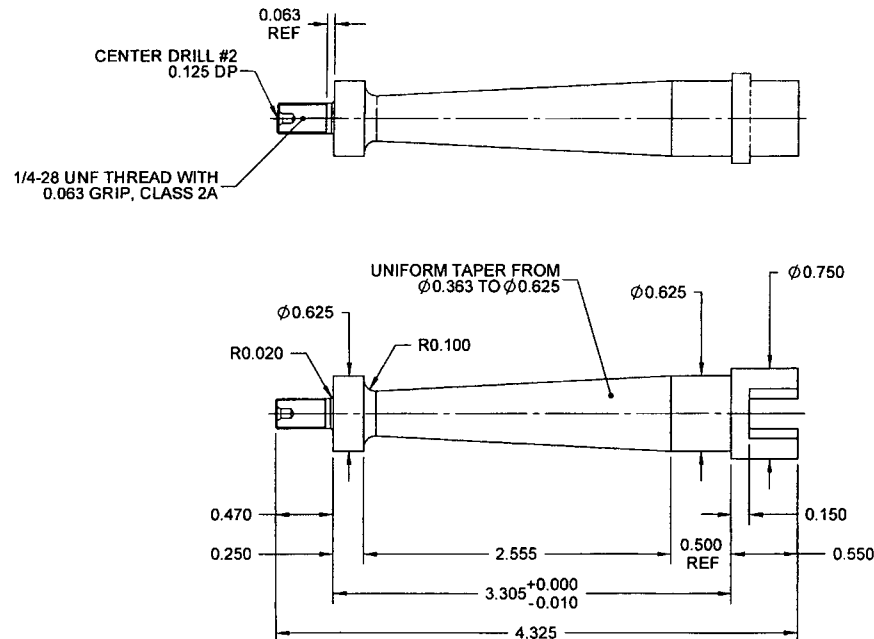
45743

**RELEASED**

**NOTES:**

- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.33 lbs

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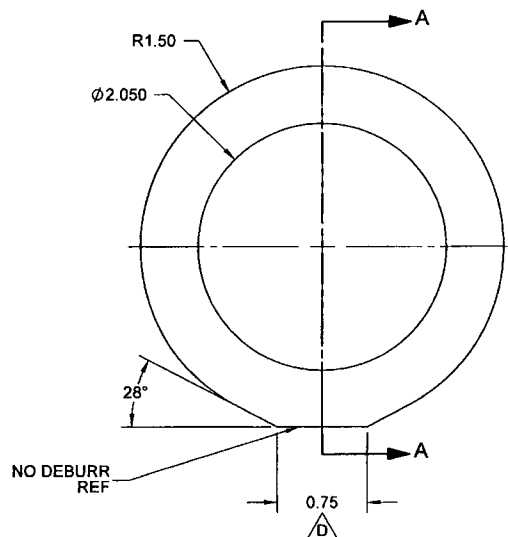


**D3407-3 STEM**

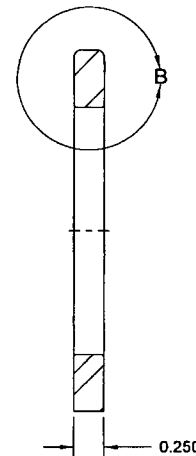
- NOTES:
- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.27 lbs

**RELEASED**  
01-05-01 11/18

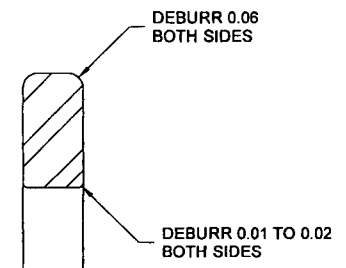
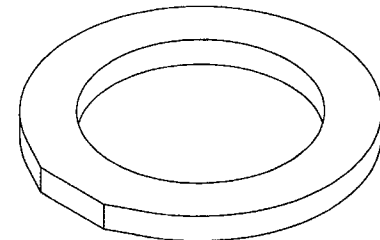
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DRAWN	Ref	PORT HADLOCK, WA	
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MFG. APPR.		D3407	SHEET 3 OF 5
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**D3407-5 RING**



**SECTION A-A**







**DETAIL B  
SCALE 2X**

**RELEASED**  
08.07.23

- NOTES:**
- 1) MATERIAL: 17-4 PH SS BAR PER AMS 5604/5643 (REF. DART SPEC M17-4-B)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: N/A
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.27 lbs

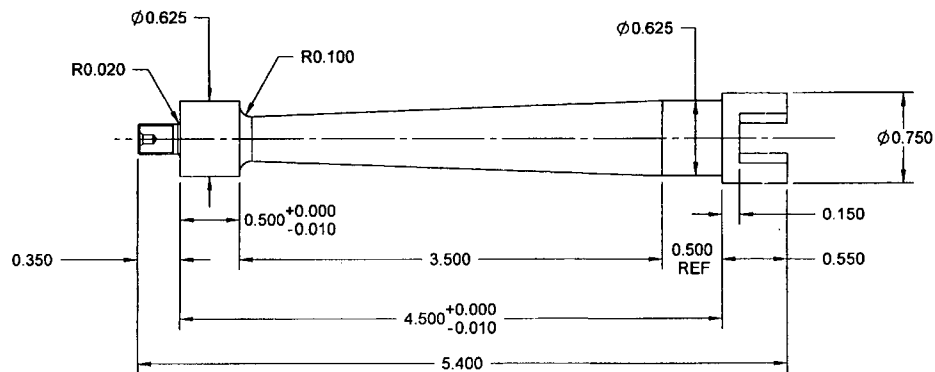
45743

DESIGN	97	<b>DART AEROSPACE USA, INC.</b>	
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MFG. APPR.		D3407	SHEET 4 OF 5
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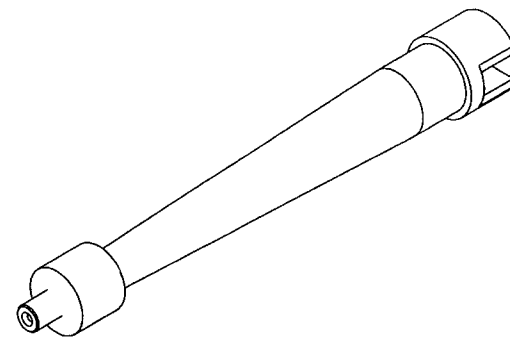
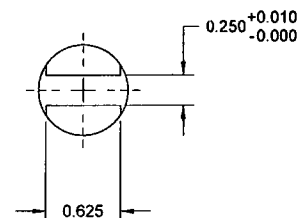


0.063  
REF  
CENTER DRILL #2  
0.125 DP

1/4-28 UNF THREAD WITH  
0.063 GRIP, CLASS 2A



**D3407-7 STEM**



- NOTES:
- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.34 lbs

45743

**RELEASED**

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CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. E
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APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	<b>TOW RING</b>	NTS
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